

Claims

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Claim 1

Liquid crystal film or layer with homeotropic alignment characterized in that said homeotropic alignment is achieved by an aligning layer on a substrate and that said aligning layer is either a layer comprising a surfactant which is fixed by a matrix of a polymeric liquid crystal or that said aligning layer is an inorganic layer.

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Claim 2

Liquid crystal film or layer according to claim 1 characterized in that the substrate is a polymeric material.

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Claim 3

Liquid crystal film or layer according to claim 2, characterized in that the substrate is a plastic sheet or film.

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Claim 4

Liquid crystal film or layer according to claim 1,
characterized in that the substrate prior to its coating with the alignment
layer or its precursor is subjected to a corona discharge.

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Claim 5

5 Liquid crystal film or layer according to claim 1,
characterized in that the alignment layer is an organic material comprising
a surfactant and a polymeric matrix.

Claim 6

10 Liquid crystal film or layer according to ^{claim 1}~~any of the claims 1 to 4~~,
characterized in that the alignment layer is an inorganic film.

15 **Claim 7**

Liquid crystal film or layer according to claim 6, characterized in that the
alignment layer is an aluminium coating or an Al_2O_3 layer.

20 **Claim 8**

Liquid crystal film or layer according to claim 7, characterized in that the
aluminium coating is a medium or high density coating.

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Claim 9

30 Process of fabricating a homeotropically oriental liquid crystal film or layer
according to claim 1 which comprises applying an aligning layer as
defined in claim 1 on a substrate.

Claim 10

35 Electrooptical system characterized in that it contains a liquid crystal film or
layer according to claim 1.

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